RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/613,524A

Source: IFW16

Date Processed by STIC: 7/31/06

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: _10/613,524A_   CRF Edit Date: _7/31/06_
                                      Edited by: _AL_

___ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

___ Corrected the SEQ ID NO. Sequence numbers edited were:

_____

_J_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_27-29_____

___ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

___ Inserted mandatory headings/numeric identifiers, specifically:

_____

___ Moved responses to same line as heading/numeric identifier, specifically:

_____

___ Other:

_____
_____
_____

RAW SEQUENCE LISTING   DATE: 07/31/2006
PATENT APPLICATION: US/10/613,524A   TIME: 15:23:46

Input Set : **A:\PTO.txt**
Output Set: **N:\CRF4\07312006\J613524A.raw**

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 4 <110> APPLICANT: KRIEG, ARTHUR M
 6 <120> TITLE OF INVENTION: NUCLEIC ACID COMPOSITIONS FOR STIMULATING IMMUNE RESPONSES
 8 <130> FILE REFERENCE: C1037.70042US00
10 <140> CURRENT APPLICATION NUMBER: US 10/613,524A
11 <141> CURRENT FILING DATE: 2003-07-03
13 <150> PRIOR APPLICATION NUMBER: US 60/394,091
14 <151> PRIOR FILING DATE: 2002-07-03
16 <160> NUMBER OF SEQ ID NOS: 29
18 <170> SOFTWARE: PatentIn version 3.2
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 21
22 <212> TYPE: DNA
23 <213> ORGANISM: Artificial sequence
25 <220> FEATURE:
27 <223> OTHER INFORMATION: Oligodeoxynucleotide
29 <400> SEQUENCE: 1
30 tcgtcgtttt tcggtcgttt t                               21
33 <210> SEQ ID NO: 2
34 <211> LENGTH: 24
35 <212> TYPE: DNA
36 <213> ORGANISM: Artificial sequence
38 <220> FEATURE:
40 <223> OTHER INFORMATION: Oligodeoxynucleotide
42 <400> SEQUENCE: 2
43 tcgtcgtttt gtcgttttgt cgtt                            24
46 <210> SEQ ID NO: 3
47 <211> LENGTH: 21
48 <212> TYPE: DNA
49 <213> ORGANISM: Artificial sequence
51 <220> FEATURE:
53 <223> OTHER INFORMATION: Oligodeoxynucleotide
56 <220> FEATURE:
57 <221> NAME/KEY: misc_feature
58 <222> LOCATION: (1)..(12)
59 <223> OTHER INFORMATION: n is a, c, g, or t
61 <400> SEQUENCE: 3
62 nnnnnnnnnn nnggtcgttt t                               21
65 <210> SEQ ID NO: 4
66 <211> LENGTH: 9
67 <212> TYPE: DNA
68 <213> ORGANISM: Artificial sequence
70 <220> FEATURE:
72 <223> OTHER INFORMATION: Oligodeoxynucleotide
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W--> (line 62)

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RAW SEQUENCE LISTING   DATE: 07/31/2006
PATENT APPLICATION: US/10/613,524A   TIME: 15:23:46

Input Set : A:\PTO.txt
Output Set: N:\CRF4\07312006\J613524A.raw

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 74 <400> SEQUENCE: 4
 75 ggtcgtttt                                                        9
 78 <210> SEQ ID NO: 5
 79 <211> LENGTH: 21
 80 <212> TYPE: DNA
 81 <213> ORGANISM: Artificial sequence
 83 <220> FEATURE:
 85 <223> OTHER INFORMATION: Oligodeoxynucleotide
 88 <220> FEATURE:
 89 <221> NAME/KEY: misc_feature
 90 <222> LOCATION: (13)..(21)
 91 <223> OTHER INFORMATION: n is a, c, g, or t
 93 <400> SEQUENCE: 5
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W--> 94 tcgtcgtttt tcnnnnnnnn n   21
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 97 <210> SEQ ID NO: 6
 98 <211> LENGTH: 12
 99 <212> TYPE: DNA
100 <213> ORGANISM: Artificial sequence
102 <220> FEATURE:
104 <223> OTHER INFORMATION: Oligodeoxynucleotide
106 <400> SEQUENCE: 6
107 tcgtcgtttt tc                                                   12
110 <210> SEQ ID NO: 7
111 <211> LENGTH: 20
112 <212> TYPE: DNA
113 <213> ORGANISM: Artificial sequence
115 <220> FEATURE:
117 <223> OTHER INFORMATION: Oligodeoxynucleotide
119 <400> SEQUENCE: 7
120 tcgtcgtttt tcggtcgttt                                           20
123 <210> SEQ ID NO: 8
124 <211> LENGTH: 19
125 <212> TYPE: DNA
126 <213> ORGANISM: Artificial sequence
128 <220> FEATURE:
129 <223> OTHER INFORMATION: Oligodeoxynucleotide
131 <400> SEQUENCE: 8
132 tcgtcgtttt tcggtcgtt                                            19
135 <210> SEQ ID NO: 9
136 <211> LENGTH: 18
137 <212> TYPE: DNA
138 <213> ORGANISM: Artificial sequence
140 <220> FEATURE:
142 <223> OTHER INFORMATION: Oligodeoxynucleotide
144 <400> SEQUENCE: 9
145 tcgtcgtttt tcggtcgt                                             18
148 <210> SEQ ID NO: 10
149 <211> LENGTH: 17
150 <212> TYPE: DNA
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RAW SEQUENCE LISTING   DATE: 07/31/2006
PATENT APPLICATION: **US/10/613,524A**   TIME: 15:23:46

Input Set : **A:\PTO.txt**
Output Set: **N:\CRF4\07312006\J613524A.raw**

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151 <213> ORGANISM: Artificial sequence
153 <220> FEATURE:
155 <223> OTHER INFORMATION: Oligodeoxynucleotide
157 <400> SEQUENCE: 10
158 tcgtcgtttt tcggtcg                                              17
161 <210> SEQ ID NO: 11
162 <211> LENGTH: 16
163 <212> TYPE: DNA
164 <213> ORGANISM: Artificial sequence
166 <220> FEATURE:
168 <223> OTHER INFORMATION: Oligodeoxynucleotide
170 <400> SEQUENCE: 11
171 tcgtcgtttt tcggtc                                               16
174 <210> SEQ ID NO: 12
175 <211> LENGTH: 15
176 <212> TYPE: DNA
177 <213> ORGANISM: Artificial sequence
179 <220> FEATURE:
181 <223> OTHER INFORMATION: Oligodeoxynucleotide
183 <400> SEQUENCE: 12
184 tcgtcgtttt tcggt                                                15
187 <210> SEQ ID NO: 13
188 <211> LENGTH: 14
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial sequence
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W--> 191 **<220> FEATURE:**
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193 <223> OTHER INFORMATION: Oligodeoxynucleotide
195 <400> SEQUENCE: 13
196 tcgtcgtttt tcgg                                                 14
199 <210> SEQ ID NO: 14
200 <211> LENGTH: 12
201 <212> TYPE: DNA
202 <213> ORGANISM: Artificial sequence
204 <220> FEATURE:
206 <223> OTHER INFORMATION: Oligodeoxynucleotide
208 <400> SEQUENCE: 14
209 tcgtcgtttt tc                                                   12
212 <210> SEQ ID NO: 15
213 <211> LENGTH: 21
214 <212> TYPE: DNA
215 <213> ORGANISM: Artificial sequence
217 <220> FEATURE:
219 <223> OTHER INFORMATION: Oligodeoxynucleotide
221 <400> SEQUENCE: 15
222 tcgtcgtttt tcggtcgttt t                                         21
225 <210> SEQ ID NO: 16
226 <211> LENGTH: 20
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial sequence
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230 <220> FEATURE:
232 <223> OTHER INFORMATION: Oligodeoxynucleotide
234 <400> SEQUENCE: 16
235 cgtcgttttt cggtcgtttt                                    20
238 <210> SEQ ID NO: 17
239 <211> LENGTH: 19
240 <212> TYPE: DNA
241 <213> ORGANISM: Artificial sequence
243 <220> FEATURE:
245 <223> OTHER INFORMATION: Oligodeoxynucleotide
247 <400> SEQUENCE: 17
248 gtcgtttttc ggtcgtttt                                     19
251 <210> SEQ ID NO: 18
252 <211> LENGTH: 18
253 <212> TYPE: DNA
254 <213> ORGANISM: Artificial sequence
256 <220> FEATURE:
258 <223> OTHER INFORMATION: Oligodeoxynucleotide
260 <400> SEQUENCE: 18
261 tcgtttttcg gtcgtttt                                      18
264 <210> SEQ ID NO: 19
265 <211> LENGTH: 17
266 <212> TYPE: DNA
267 <213> ORGANISM: Artificial sequence
269 <220> FEATURE:
271 <223> OTHER INFORMATION: Oligodeoxynucleotide
273 <400> SEQUENCE: 19
274 cgtttttcgg tcgtttt                                       17
277 <210> SEQ ID NO: 20
278 <211> LENGTH: 16
279 <212> TYPE: DNA
280 <213> ORGANISM: Artificial sequence
282 <220> FEATURE:
284 <223> OTHER INFORMATION: Oligodeoxynucleotide
286 <400> SEQUENCE: 20
287 gtttttcggt cgtttt                                        16
290 <210> SEQ ID NO: 21
291 <211> LENGTH: 15
292 <212> TYPE: DNA
293 <213> ORGANISM: Artificial sequence
295 <220> FEATURE:
297 <223> OTHER INFORMATION: Oligodeoxynucleotide
299 <400> SEQUENCE: 21
300 tttttcggtc gtttt                                         15
303 <210> SEQ ID NO: 22
304 <211> LENGTH: 14
305 <212> TYPE: DNA
306 <213> ORGANISM: Artificial sequence
308 <220> FEATURE:
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310 <223> OTHER INFORMATION: Oligodeoxynucleotide
312 <400> SEQUENCE: 22
313 ttttcggtcg tttt                                             14
315 <210> SEQ ID NO: 23
316 <211> LENGTH: 13
317 <212> TYPE: DNA
318 <213> ORGANISM: Artificial sequence
320 <220> FEATURE:
322 <223> OTHER INFORMATION: Oligodeoxynucleotide
324 <400> SEQUENCE: 23
325 tttcggtcgt ttt                                              13
328 <210> SEQ ID NO: 24
329 <211> LENGTH: 12
330 <212> TYPE: DNA
331 <213> ORGANISM: Artificial sequence
333 <220> FEATURE:
335 <223> OTHER INFORMATION: Oligodeoxynucleotide
337 <400> SEQUENCE: 24
338 ttcggtcgtt tt                                               12
341 <210> SEQ ID NO: 25
342 <211> LENGTH: 11
343 <212> TYPE: DNA
344 <213> ORGANISM: Artificial sequence
346 <220> FEATURE:
348 <223> OTHER INFORMATION: Oligodeoxynucleotide
350 <400> SEQUENCE: 25
351 tcggtcgttt t                                                11
354 <210> SEQ ID NO: 26
355 <211> LENGTH: 10
356 <212> TYPE: DNA
357 <213> ORGANISM: Artificial sequence
359 <220> FEATURE:
361 <223> OTHER INFORMATION: Oligodeoxynucleotide
363 <400> SEQUENCE: 26
364 cggtcgtttt                                                  10
367 <210> SEQ ID NO: 27
368 <211> LENGTH: 13
369 <212> TYPE: DNA
370 <213> ORGANISM: Artificial sequence
372 <220> FEATURE:
374 <223> OTHER INFORMATION: Oligodeoxynucleotide
377 <400> SEQUENCE: 27
378 tcgtcgtttt tcg                                              13
381 <210> SEQ ID NO: 28
382 <211> LENGTH: 26
383 <212> TYPE: DNA
384 <213> ORGANISM: Artificial sequence
386 <220> FEATURE:
388 <223> OTHER INFORMATION: Oligodeoxynucleotide
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 07/31/2006
PATENT APPLICATION: US/10/613,524A   TIME: 15:23:47

Input Set : **A:\PTO.txt**
Output Set: **N:\CRF4\07312006\J613524A.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12
Seq#:5; N Pos. 13,14,15,16,17,18,19,20,21
Seq#:28; N Pos. 4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23
Seq#:29; N Pos. 4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,27,28
Seq#:29; N Pos. 29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46

VERIFICATION SUMMARY   DATE: 07/31/2006
PATENT APPLICATION: **US/10/613,524A**   TIME: 15:23:47

Input Set : **A:\PTO.txt**
Output Set: **N:\CRF4\07312006\J613524A.raw**

L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:191 M:283 W: Missing Blank Line separator, <220> field identifier
L:397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:422 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0

c

Raw Sequence Listing before editing
(for reference only)

IFW16

RAW SEQUENCE LISTING   DATE: 07/31/2006
PATENT APPLICATION: **US/10/613,524A**   TIME: 08:53:20

Input Set : **A:\C1037.70042US00; Revised SEQ listing.txt**
Output Set: **N:\CRF4\07312006\J613524A.raw**

```
  4 <110> APPLICANT: KRIEG, ARTHUR M
  6 <120> TITLE OF INVENTION: NUCLEIC ACID COMPOSITIONS FOR STIMULATING IMMUNE RESPONSES
  8 <130> FILE REFERENCE: C1037.70042US00
 10 <140> CURRENT APPLICATION NUMBER: US 10/613,524A
 11 <141> CURRENT FILING DATE: 2003-07-03
 13 <150> PRIOR APPLICATION NUMBER: US 60/394,091
 14 <151> PRIOR FILING DATE: 2002-07-03
 16 <160> NUMBER OF SEQ ID NOS: 29
 18 <170> SOFTWARE: PatentIn version 3.2
```

pp1-2

*Does Not Comply
Corrected Diskette Needed*

ERRORED SEQUENCES

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367 <210> SEQ ID NO: 27
368 <211> LENGTH: 13
369 <212> TYPE: DNA
370 <213> ORGANISM: Artificial sequence
372 <220> FEATURE:
374 <223> OTHER INFORMATION: Oligodeoxynucleotide
377 <400> SEQUENCE: 27
```
E--> 378 tcgtcgtttt tcg   *13 <— insert*
```
381 <210> SEQ ID NO: 28
382 <211> LENGTH: 26
383 <212> TYPE: DNA
384 <213> ORGANISM: Artificial sequence
386 <220> FEATURE:
388 <223> OTHER INFORMATION: Oligodeoxynucleotide
391 <220> FEATURE:
392 <221> NAME/KEY: misc_feature
393 <222> LOCATION: (4)..(23)
394 <223> OTHER INFORMATION: n is a, c, g, or t; and any 0-20 may be absent
396 <400> SEQUENCE: 28
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E--> 397 gggnnnnnnn nnnnnnnnnn nnnggg   *26 <—*
```
400 <210> SEQ ID NO: 29
401 <211> LENGTH: 49
402 <212> TYPE: DNA
403 <213> ORGANISM: Artificial sequence
405 <220> FEATURE:
407 <223> OTHER INFORMATION: Oligodeoxynucleotide
410 <220> FEATURE:
411 <221> NAME/KEY: misc_feature
412 <222> LOCATION: (4)..(23)
413 <223> OTHER INFORMATION: n is a, c, g, or t; and any 0-20 may be absent
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RAW SEQUENCE LISTING   DATE: 07/31/2006
PATENT APPLICATION: **US/10/613,524A**   TIME: 08:53:20

Input Set : **A:\C1037.70042US00; Revised SEQ listing.txt**
Output Set: **N:\CRF4\07312006\J613524A.raw**

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   415 <220> FEATURE:
   416 <221> NAME/KEY: misc_feature
   417 <222> LOCATION: (27)..(46)
   418 <223> OTHER INFORMATION: n is a, c, g, or t; and any 0-20 may be absent
   421 <400> SEQUENCE: 29
E--> 422 gggnnnnnnn nnnnnnnnnn nnngggnnnn nnnnnnnnnn nnnnnnggg          49←
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VERIFICATION SUMMARY　　　　　　　　　DATE: 07/31/2006
PATENT APPLICATION: **US/10/613,524A**　　　TIME: 08:53:21

Input Set : **A:\C1037.70042US00; Revised SEQ listing.txt**
Output Set: **N:\CRF4\07312006\J613524A.raw**

L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:191 M:283 W: Missing Blank Line separator, <220> field identifier
L:378 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:13 SEQ:27
L:397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:397 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:26 SEQ:28
L:422 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:422 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:49 SEQ:29